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10/006,046	12/05/2001	Michael E. Lewis	72255/02776	1708

7590 11/28/2005  
JEFFREY S. WHITTLE  
AT THE LAW FIRM OF BRACEWELL & PATTERSON, LLP  
711 LOUISIANA STREET  
SUITE 2900  
HOUSTON, TX 77002-2781

EXAMINER
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LIU, JONATHAN

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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## Office Action Summary

Application No.

10/006,046

Applicant(s)

LEWIS, MICHAEL E.

Examiner

Jonathan Liou

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-61 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 44-61 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding Claim 44, a computer usable medium does not be realized as readable and computer readable program code does not be realized as executable. The examiner suggests the applicant to replace "a computer usable medium" with "a computer readable medium" and "computer readable program" with "computer executable program."

Regarding Claims 45-61, claims are dependent of claim 44; thus, it renders to the same rejection as claim 44.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 24-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Regarding Claim 24, applicant states that the network apparatus of claim 10; however, there is no network apparatus according to claim 10. Thus, the examiner could not identify which claim should claim 24 depend on.

Regarding Claim 25, since claim 25 is dependent on claims 24; therefore, it renders the same rejection as claims 24.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-11, 13-23, 26-36, 38-54, 56-61 are rejected under 35 U.S.C. 102(e) as being anticipated by Jorgensen (US Pub No. 2003/0067903.)

6. As per claim 1, Jorgensen teaches a method of network management comprising:

Providing a central controller for controlling network access of at least one access point and a respective plurality of associated clients (**router 140 for controlling network access of at least one access point and a respective plurality of associated clients. See Fig. 1B and 2C, Jorgensen.**)

Monitoring a plurality of network parameters that influence performance between the clients and the network (**See Fig. 11, sec [0160], [0362], [0632], Jorgensen.**)

Regulating access of the plurality of clients to the network so as to vary at least one of the plurality of network parameters, to influence performance (**Jorgensen teaches changing networks load by notifying applications of spikes or variations, in network transmissions. See sec [0358].**)

7. As per claim 2, Jorgensen teaches monitoring the queue, transmission rate, bandwidth and QoS (**See sec [0160], [0178], [0362], [0632], Jorgensen.**)

8. As per claims 3-6, Jorgensen teaches QoS is to maximizing the quality of networking transmission service to the extreme by either pushing network parameter to the optimal or minimizing the latency, traffic congestion, and jitter. Jorgensen also teaches to increase the throughput. See sec [0160], [0178], [0362], [0386], [0387], and [0632], Jorgensen.

9. As per claims 7 and 10, Jorgensen teaches monitor network packet congestion and queue, which could have packet information (**See sec [0160], [0178], [0634], [0635]**) Jorgensen also teach places the packet data to the time slots according to scheduling function (**See sec [0418], [0424]**)

10. As per claims 8-9 and 11, Jorgensen teaches managing space by using the flow scheduler to avoid simultaneous access (**See sec [0479].**), and also teaches altering the routing paths between the antenna (**See sec [0330]-[0331].**) Furthermore, Jorgensen teaches managing time by selecting accessing the slot to avoid collision (**See sec [0418], [0463]-[0465].**)

11. As per claim 13, Jorgensen teaches giving higher priority to real time data for low delay, latency, and jitter (**See sec [0479].**)

12. As per claims 14-16, Jorgensen teaches monitoring of services and collects information on participants, which could be position of client (**See sec [0362], Jorgensen.**), and controlling network access according to a network access topology of TDMA (**See fig. 12, Jorgensen.**) Jorgensen also teaches changes the parameter for QoS, which includes data rate or number of retries (**See sec [0136], [0137], and [0143], Jorgensen.**)

13. As per claim 17, Jorgensen teaches transmit a signal in a uplink or downlink and detected by the router and send to main controlling system for QoS analysis, which including signal strength and uplink or downlink and further reducing multipath interference (**See sec [0238], [0570]-[0576], Jorgensen.**)

14. As per claim 18, Jorgensen teaches performing certain routine on assigning the hosts, which could be the network calibration routine as claimed (**See sec [0238]-[0243], Jorgensen.**)

15. As per claims 19-20, Jorgensen teaches a network apparatus comprising a network management system for managing network across of at least one access point a respective plurality of associated clients (**See Fig. 2, Jorgensen.**), the management system comprising:

A machine-implemented algorithm for monitoring a plurality of performance-related network parameters between the clients and the network (**See sec [0634]-[0636], Jorgensen.**), and outputting instructions for varying at least one of the network parameters (**By monitoring QoS, the QoS would provide the transmission rate and other parameter for outputting. See sec [0632]-[0633], Jorgensen.**)

A processor for regulating access of the plurality of clients according to the algorithm's outputted instructions, to regulate access of the plurality of clients in order to influence network performance (**QoS mechanism parameters would be used to perform in order to have quality performance. See [0169], Jorgensen.**) In addition, QoS managing monitor a plurality of computer host and workstation and clients as shown in Fig. 2.

16. As per claims 21-22, Jorgensen teaches Ethernet hub system for controlling interfacing with a network and a plurality of hosts sending and receiving data (**See sec [0231], [0334], Jorgensen.**) Jorgensen also teaches processor to control data flow (**See sec [0477], [0478], Jorgensen.**)

17. As per claims 23, Jorgensen teaches switch operates reservation protocol and management of bandwidth (**See sec [0347].**) Jorgensen teaches QoS, which is 801.1P/Q compliance.

18. As per claims 26-36, 38-54, and 56-60, are similar claims to claims 1-11, and 13-17 except claiming in the apparatus and computer program product. Jorgensen also teach the network apparatus (**Fig. 2 Jorgensen.**) and computer program (**See Fig. 11, Jorgensen.**) to perform the method; thus, the same rationale and basis as applied to claims 1-11 and 13-17 are applied.

### ***Claim Rejections - 35 USC § 103***

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 12, 37, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jorgensen (US Pub No. 2003/0067903.), and in view of Lomp (US Pat No. 6,456,608)

21. As per claims 12, 37, and 55, Jorgensen teaches increase the bandwidth and throughput except using beam/null forming to compute on orthogonal antenna array pattern. However, Lomp teaches that using array antennas to generate multiple beams and using very long orthogonal code sequence and these sequence would be related to capacity of a multiple access and spread-spectrum system (See col 2, lines 51-56, Lomp.) Therefore, it would have been obvious for one who have ordinary skill in the art at the time the invention was made to use beam forming on orthogonal antenna array because beam forming would solve the problem for supporting a large number of users with the orthogonal codes, handling reduced power available to remote units and handling multipath fading effect (See col 2, lines 50-53, Lomp.)

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Liou whose telephone number is 571-272-8136. The examiner can normally be reached on 8:00AM - 5:00PM Mon-Fri.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jonathan Liou

11/17/2005

  
RICKY Q. NGO  
SUPERVISORY PATENT EXAMINER